



27<sup>th</sup> January 2009

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## QUARTERLY EXPLORATION REPORT

(For the period October 1<sup>st</sup> to December 31<sup>st</sup> 2008)

Strategically, the Company recognises it must carefully balance the needs of exploration within an overall deteriorating global economic climate. The Company therefore is endeavouring to make the greatest rate of progress from the most promising project initiatives now established at Fifield (see Appendix 1). There is no doubt that the highly mineralised province at Fifield NSW is significantly underexplored in historic terms, so setting clear priorities, that remain sufficiently flexible to accommodate the exploration results as they unfold, is a key element to the ongoing direction of the Company.

Accordingly, as outlined in the Chairman's Address<sup>1</sup> and Exploration Presentation at the Company AGM, (20<sup>th</sup> November 2008), exploration priorities have been established consistent with the following principles:

- **Maintain a high quality output of exploration, within a low cost structure.** The Company is well disposed to this goal, through its established "in house equipment and infrastructure" utilising well priced, labour intensive exploration programs. The accessible nature of the Pt mineralisation allows this approach.
- **The dominant exploration focus for the Company will remain the pursuit of primary coarse grain Pt within the bedrock, at Fifield NSW, in the Platina-Gillenbine and Ebenezer areas.** Significant re-interpretation of the mineralising systems has been a feature of the Company's work at Fifield (Appendix 2), providing greater insight to the potential of the area.
- **The tangible nature of the Pt mineralisation in particular, existing in the surface and near surface positions at Fifield, will be assessed for its commercial return possibilities,** with bulk testing, and where appropriate, larger scale trial mining, in the most suitable areas commencing in February 2009.
  - Bulk sampling for Pt will occur on the Company freehold as a priority
  - A range of Pt bearing layers will be assessed including, soils, subsoil clays, gravels and bedrock
  - The objective is to define areas of commercial importance that can contribute a cash positive return towards the ongoing exploration programs, in harmony with the overall bedrock exploration strategy.
- **Other project priorities will proceed in order of merit as exploration results continue to accumulate,** but will be focused primarily at Fifield on the prospects "Sorpresa" (Au, Base metal in Gossanous Breccia), "Goldengreen" (Au dispersed in Sediments, "so called Carlin Style") and "Eclipse-Eclipse North" (Au and VMS style base metal).
- Diamonds will have minimal exploration expenditure in the short term.

*The Company sees the potential for growth in each of these projects, but is aiming in the short term to secure a contribution to cash flow with a strategy of "exploration through trial mining and sampling" in its Pt mineralised areas.*

### **HIGHLIGHTS FOR THE QUARTER - FIFIELD NSW**

Considerable activity and further milestones were reached during the December quarter period by the Company:

<sup>1</sup> Chairman's Address 20<sup>th</sup> November 2008, link <http://www.asx.com.au/asxpdf/20081120/pdf/31dpltgz2vzdf9.pdf>

- **Bulk sampling and trial mining on the Company freehold (Pit One area and MC305 & MC306) is ready to commence in early February 2009.**
  - Approval was received for bulk sampling in a broader area, and trial mining in these areas.
  - Geological mapping, auger drilling and trenching has identified target areas of Pt bearing gravels and Pt bearing “bedrock mineralised veins” suited for bulk testing.
  - The larger gravity plant has been modified to achieve a throughput rate of 15 tonne/hour, plus a much improved cleanup time between samples.
- **New Trenches 26 and 26A in the period identified more Pt bearing mineralised veins, thus extending the existing vein structure to 60m (between Tr20 and Tr26), but open in all directions.**
  - This area will be the focus of bedrock examination in the bulk testing and trial period.
- **A major soil geochemistry grid was completed over Eclipse North and Sorpresa areas, using field XRF technique that confirmed anomalies, thus identifying suitable targets for subsequent work.**
  - A Copper (Cu) and Lead (Pb) anomaly identified over Eclipse North (mineralised surface area approx 1,000m x 200m).
  - A Pb anomaly at Sorpresa (approx. 100m x 120m) identified at surface, with supporting Zn anomaly, co-incident with 2008 RC drill program and slight magnetic anomaly – representing a possible “mineralised breccia pipe conceptual target”.
- Trenching and auger drilling at the “Goldengreen” area commenced to further advance the current observations, namely “Au dispersed in sediments”.

#### **Background on Geological context and importance of Pit One Area and Bulk Testing Phase**

The Company continues to use low cost soil sampling programs, auger drilling and trenching programs to delineate high priority target areas containing coarse grain Platinum (Pt) within the bedrock.

***Within early October, the Company had made a significant discovery concerning the geological control of the Pt mineralizing system at Fifield, on its freehold.***

The intersection of complex, clearly identifiable vein structures, containing Pt, Au and a key pathfinder element Chromite (Cr) occurred in Trenches 20, 24 and 24a ***and this was extended in the period with observation in Tr26 and Tr26a.***



*Part of wall section Tr26 with vein exposed*



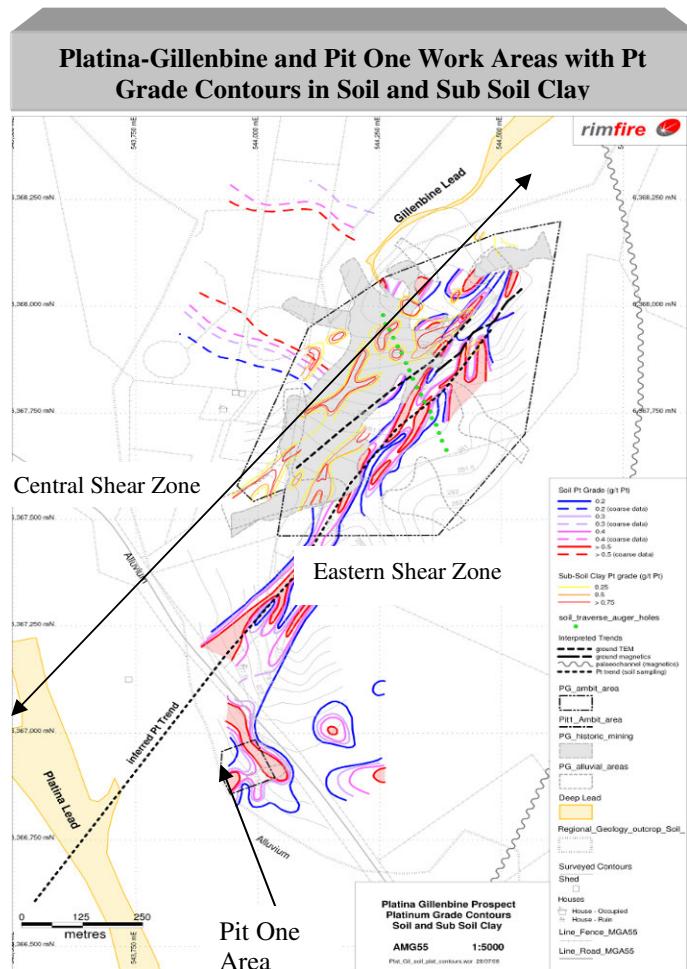
*Base of Trench 24a Showing Pt bearing veins*

The Company believes that this could be representative of the entire mineralised Pt system observed at Fifield within the Platina-Gillenbine and Ebenezer project areas<sup>2</sup> and is an important milestone with respect to Pt exploration at Fifield.

“Pit One” is considered an important area, linking the shear zone system, at Platina-Gillenbine to the gradation of the near surface bedrock position to the alluvium covered valley containing the Platina Deep Lead system, historically mined 100 years ago.

<sup>2</sup> This combined area is approximately 6km<sup>2</sup> including Ebenezer and Platina-Gillenbine

## **Exploration Program - Bulk Sampling of Bedrock and Gravel Systems on Company Freehold**



*Mineralised veins were seen in Trench 20, 24, 24a, 26 in the vicinity of Pit One Area and MC 305 & 306. A new gravel system was also encountered.*

***The Company has mapped out a plan for trial mining of a new Pt bearing gravel system encountered during the recent trenching and auger drilling programs.***

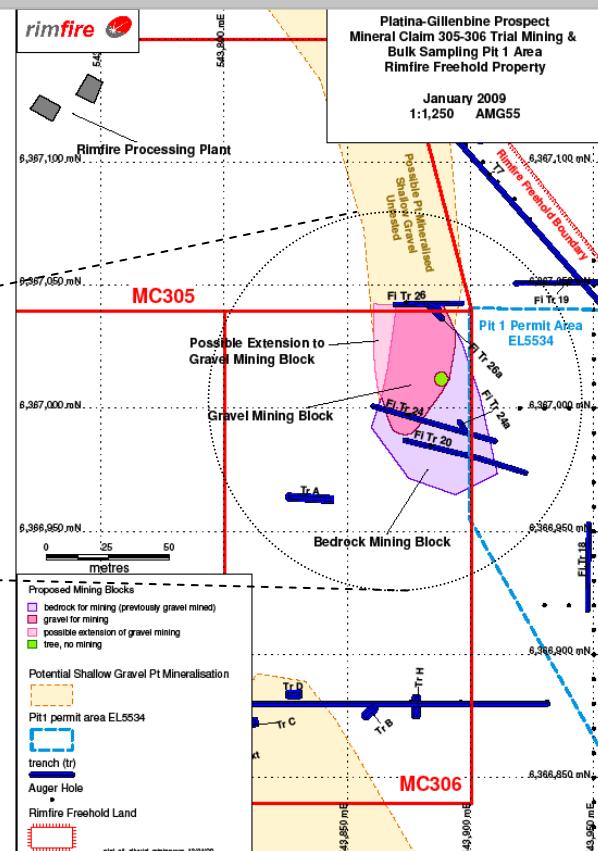
This gravel is approx. 0.8m thick in limited exposures seen in trenches. Additional reconnaissance auger programs will help delineate the gravel system further north and south.

The overburden will first be removed (1~2m), the gravel will be trial mined and the bedrock will be cleaned off over the entire area, mapped and sampled. The bedrock will be tested with layered exposures created in “plan

The “*Eastern Shear Zone*” Pt surface anomaly was established in the previous quarter <sup>3</sup> as a *continuous feature over a strike length of 1,000m*. It extends into the Company owned freehold land area. The Pt contours within the residual soil are parallel in orientation with the subsoil Pt anomaly at Platina-Gillenbine, now named the “*Central Shear Zone*” (which was defined in 2006 <sup>4</sup>).

The “**Pit One**” sampling area appears geologically influenced by the Eastern Shear Zone. Accordingly, the Pit One area is being extensively evaluated with auger drilling and trenching for the significance and orientation of the Pt position in the bedrock at this location.

# **Pit One and Mineral Claim 305 & 306 Bulk Sampling and Trial Mining Areas (work schedule established)**



<sup>3</sup> ASX Announcement 16-10-2008 link <http://www.rimfire.com.au/PDF/KeyGeologicalControlDiscoveredforPlatinum.pdf>

**4 ASX Announcement 13-12-2006 link** [http://www.rimfire.com.au/PDF/Pt%20Update%2013\\_12\\_2006%20Final%20ASX.pdf](http://www.rimfire.com.au/PDF/Pt%20Update%2013_12_2006%20Final%20ASX.pdf)

view” to highlight the Pt bearing mineralised veins, adjacent to and beneath the gravel system. The work on the bedrock and the gravel is expected to commence early February 2009. The aim of the program is to provide indications of Pt grade and geology, with the potential benefit of developing a future cash flow from any recovered Pt.



#### **Background on Sampling Strategy for Coarse Grain Pt in the Fifield District**

The vein structures seen in the Pit One vicinity still requires detailed understanding and assessment to determine “where the best areas” of Pt reside. (It is believed that the Pt is likely to reside in high grade clusters, within veins of this type).

In very limited sampling in late 2008, the better vein grades were around 0.6g/t Pt and 0.3g/t Au, as gravity recovered material, estimated internally by the Company. However, the Pt grade is highly variable, so the average grade is not yet known.

Sampling will need to be increased substantially to achieve more meaningful grade estimates, and this will also require testing in multiple locations. The Company will create a large exposed area of the structured veins, and prepare various samples in order to exhaustively investigate the specific Pt orientation in three dimensions. The positions hosting the best Pt grade are not yet known, both within the Pit One vicinity, or the wider Platina-Gillenbine area.

The horizontal exposures of the bedrock would be of the order 30m x 30m sections. The Company will be endeavouring to pursue a wider district sampling program of a similar nature, in due course.

This would likely involve refining a strategy for establishing an application for a “bulk sampling assessment area” at Platina-Gillenbine, that would allow determination of Pt grade and distribution within the three key layers at this area, namely the soil profile, sub soil clay and the weathered bedrock, including the important shear zones and brecciated areas that are now known to exist.

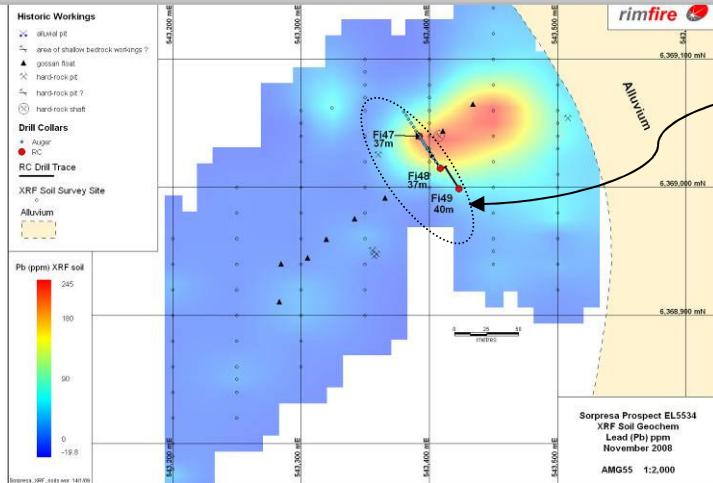
#### **EXPLORATION SUMMARY FOR OTHER AREAS AT FIFIELD IN THE QUARTER**

Exploration was also conducted at other locations within the Fifield district in the period, building upon earlier work, particularly at the prospects “Sorpresa”, “Eclipse North” and “Goldengreen”.

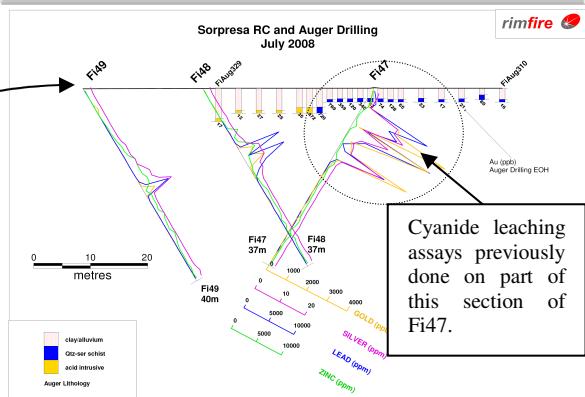
- ◆ Previous rock chip assays and mapping have identified a significant Au and base metal anomaly at “Eclipse North”. A detailed soil geochemical survey grid was performed indicating significant Pb and Cu anomalism.
- ◆ At the “Sorpresa” prospect a gridded soil geochemistry survey was completed indicating Pb and Zn anomalism, supporting the previous results from the 2008 auger drilling and the RC drilling programs.
- ◆ “Goldengreen” was further examined with trenching and auger drilling exploring for the newly observed “dispersed Au in sediments” already seen in this area, in previous auger drilling.

## "Sorpresa" Prospect – Possible Mineralised Breccia Pipe target developed from Pb Geochemistry

**"Plan View" Sorpresa Pb Geochemical Soil Anomaly Nov 2008**

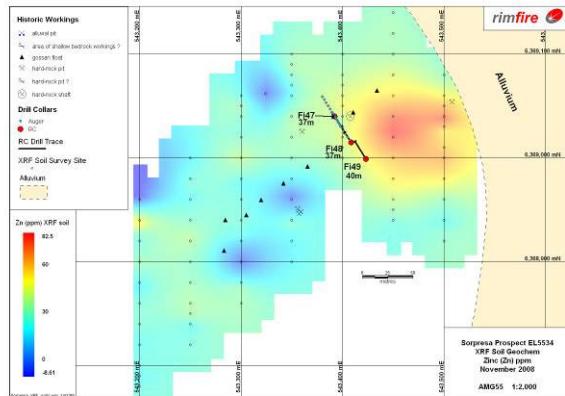


**Sorpresa Prospect RC Drill Hole Section 2008**



During the period, soil geochemistry using field XRF<sup>5</sup> was performed on a grid with 50 m line spacings, assaying for Pb and Zn. The results indicate a discrete geochemical anomaly, possibly representative of a "breccia mineralised pipe-like body", of the order 120m x 100m. The Company sees some conceptual target similarities to the "Cobar NSW mineralised lens shapes" in plan view. There is a deep subtle magnetic anomaly co-incident with this newly defined soil geochemical anomaly.

**"Plan View" Sorpresa Zn Geochemical Soil Anomaly Nov 2008**



The Company believes that the Sorpresa Au project has shown some encouraging signs in the work programs undertaken to date.

The presence of near surface Au and base metal mineralisation determined in auger drilling and a small RC drill program, combined with a positive cyanide leach test confirming the "extractable nature" of the Au mineralisation demonstrates that Sorpresa represents a suitable commercial target.

This is particularly the case, when the broader context of the historic Au and Pb 700m to the NE are considered.

**A detailed auger drilling grid over the newly defined anomaly has been designed for implementation in the first quarter 2009, comprising approximately 60 holes to determine the bedrock geochemistry.**

***The magnetic anomaly will be modeled to depth, on the basis that multiple mineralised lenses could be present in the zone above the magnetic body, and this would be subsequently drill tested, if appropriate, at a later stage.***

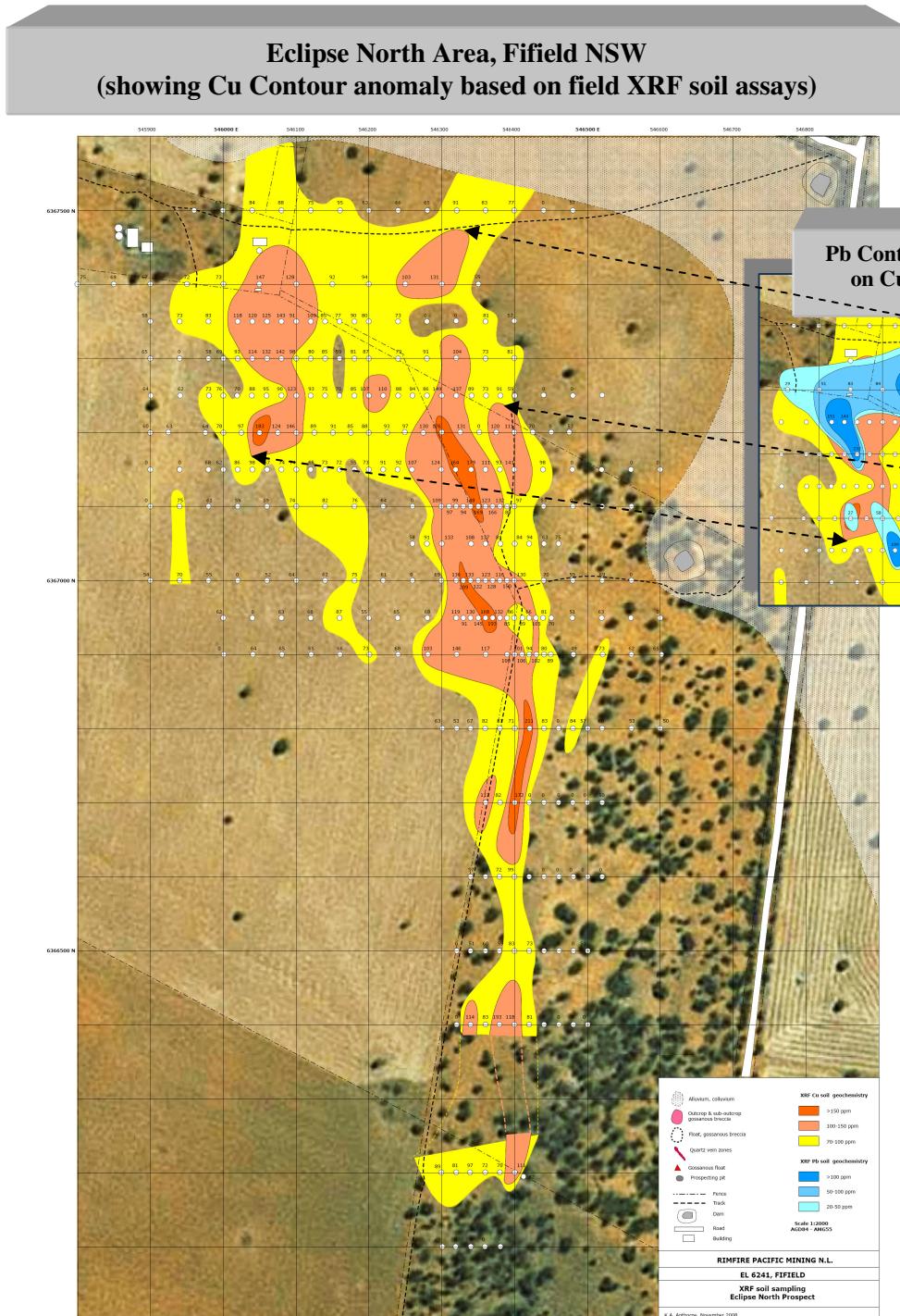
(It is important to realize the results achieved in the 2008 RC Drill program, included hole Fi47 which had the best intersection, a 13m interval (from 2m to 15m) at 1.59g/t Au, 8.7g/t Ag, **0.53% Pb**, which included a 6m interval (from 4m to 10m) at 2.47g/t Au, 14.7g/t Ag, **0.95% Pb**. **The subsequent geochemical survey now completed at Sorpresa, shows Pb values in the soil are elevated, but not particularly high, indicating that the**

<sup>5</sup> XRF (X-ray fluorescence) Model Innov-X Omega 4000 Model was used.

*soils are dispersive and dilutive. The conclusion is therefore, that the soil values “under represent” the Pb mineralisation as seen in the RC drill holes.)*

### “Eclipse North” Prospect – Possible VMS style target developed from Cu and Pb Geochemistry

Eclipse North has a prominent copper anomaly extending north-south along the ridge where float of mineralised and gossanous breccias occur, and extending further south along the ridge crest to the east of the Eclipse prospect. Anomalous values are 70-211 ppm Cu, with background values estimated up to about 60 ppm Cu. The main zone of this anomaly has a strike length of 900m, with values of 100-150 ppm Cu over widths of up to 100m.



About 300m to the west is a second copper anomaly with a north-south strike length of 300m, and values of 100-150 ppm Cu over widths of up to 100m. Peak value is 183 ppm Cu.

A Pb anomaly is coincident with the western Cu anomaly, with peak values up to 232 ppm Pb. This anomaly extends east about 100m to include a second peak of 262 ppm Pb. Brecciated/sheared mineralised float has been sampled from this area.

Zinc is more dispersed, but peak zinc soil values correlate with the lead anomaly. All the anomalies terminate to the north at a shallow valley occupied by transported colluvium/alluvium which was not sampled. The distribution of anomalies suggests two sub-parallel mineralised zones, The eastern zone dominated by copper, the west one with lead and copper.

An auger drilling program is the next stage of exploration,

designed to test the bedrock geochemistry for Au and base metal.

The Pb anomalism is considered important, even though relatively low values are seen in the “Eclipse North” soil geochemistry. Based on the experience at “Sorpresa”, the underlying mineralisation potential is well worth pursuing at “Eclipse North”, given a similar soil geochemistry was obtained at “Sorpresa”.

### **“Goldengreen” Prospect – Possible fine Au dispersed in Sediments – “Carlin Style Model”**

In the quarter, the Company began trenching the “Au in Sediments” anomaly previously encountered in auger drilling at “Goldengreen” prospect.

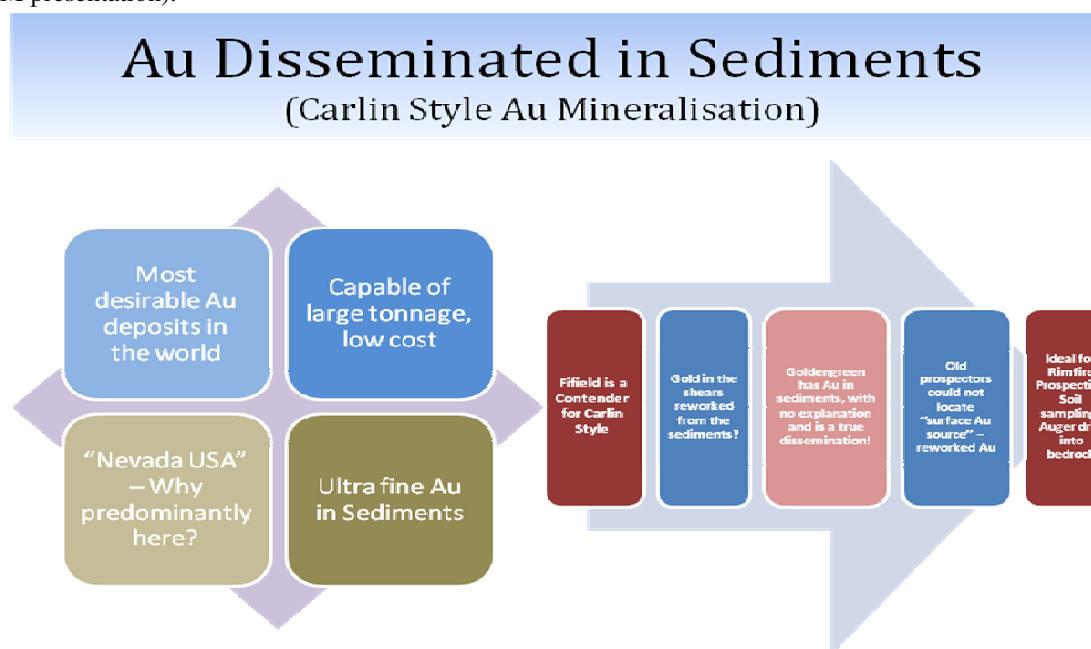
The geological structure revealed in the trenching, Tr27, shows a cluster of shear-faults with strike direction 30 deg (AMG). This direction agrees with the Au soil anomaly, but is at variance to the assumed old working strike direction. However, most importantly, the strike direction 30 deg (AMG) is exactly the same as the Platina-Gillenbine Eastern and Central Shear Zones strike direction. This would tend to indicate a structural connection between Goldengreen and the Platina-Gillenbine areas.

A regional plot of this shear-fault direction shows it to be highly disruptive to the Murga and Tout Intrusives to the north, indicating this is a large feature that needs to be prospected for disseminated Au.

The trenching (Tr27) encountered very hard rock which was difficult to sample. A program of gridded auger drilling is required to cover the “8 Au bearing areas” already known in the vicinity at “Goldengreen”. This would involve a low cost program of approximately 400 holes for routine external laboratory assay. This program will await the immediate further progress on higher priorities identified in the Platina-Gillenbine and Sorpresa areas.

*Whilst the work is at an early stage, it should nevertheless be recognised that the Company has confirmed previously at Fifield that “Au is disseminated in Sediments” and no adequate explanation currently exists.*

(The summary observations and strategy are shown below, and the audio content can be accessed in the 2008 AGM presentation).



### **SUMMARY EXPLORATION PLANNED AT FIFIELD FOR THE MARCH QUARTER 2009**

In the March quarter 2009, the Company intends to perform the following activities at Fifield:

- Undertake significant bulk sampling and trial mining within the Pit One Area and MC305 & 306 areas
- Recover Pt in the bulk testing and estimate grade on the exposed bedrock and mined gravel system
- Open additional trenches as required at the Pit One area

- Use extensive auger drilling for further geochemical testing of bedrock at various prospects, including Sorpresa, and possibly Eclipse North
- Continue to process historic samples in the Company sample data bank, as appropriate
- Undertake an orientation survey on newly awarded EL's at Fifield

### **Project and Mineralisation Background – Fifield NSW**

The systematic exploration by Rimfire within the immediate Fifield region has continued to develop a wide variety of mineralisation prospects. Each prospect has a strong surface expression, a highly relevant geological context and favourable development criteria.

There is a significant variation in mineralisation styles at Fifield, which includes Au, Pt and Cu/Base Metal prospects with these occurring across a zone of less than 10km. This observation also provides further support to the interpretation of the region as being a complex volcanic rift setting, with evidence for multiple, polymetallic mineralisation events associated with sub-volcanic intrusives, shearing and brecciation at various scales.

Accordingly, the exploration shows that metal zoning remains an important feature of the regional geology at Fifield. The under explored Fifield area represents an excellent exploration setting for commercial mineralisation discovery in the Company's view (Appendix 1).

#### ***The major mineralisation target for exploration by the Company at Fifield remains focused on coarse grain Platinum.***

A key feature of the exploration landscape at Fifield NSW is the minimal outcrop available for examination. However, in many instances the depth to bedrock is less than two metres, so a combination of soil geochemistry, auger drilling and trenching to bedrock is an ideal way to prospect for the evidence of significant mineralisation in most instances. These activities are also relatively low cost to undertake.

Historic Pt soil mining at Fifield (circa. 1900~1930) has disturbed the most exposed areas of the land surface, thus requiring a customized soil sampling technique in many instances. The large scale of the Pt mineralisation at Fifield has meant that the Company has needed considerable near surface sample processing to define representative areas of bedrock Pt.

### **DIAMOND EXPLORATION QUARTERLY ACTIVITY SUMMARY**

The Company completed the soil sampling program within the Trevallyn Prospect at Bingara during the quarter. This work involved surface and near surface sampling in the soils above the drainage of previously recovered indicator minerals and the 0.271 carat Trevallyn diamond (circa. 2002).

Similar soil sampling programs in the last 18 months have been successful in helping to isolate key diamond indicator mineral sources leading to the discovery of "Horton Valley No.1" and "Horton Valley No.2" "pipe structures" within the Diamond Project area at Bingara NSW.

Exploration conducted in the period was minimal, and involved sample prioritisation for future petrological micro probing to be conducted at a later stage. This will determine diamond indicator chemistry and set parameters for the next phase of work at Trevallyn, targeting additional "pipe like structures".

Depending on the results of the garnet chemistry at Trevallyn, an auger drill campaign to locate another potential pipe would follow at a later date.

### **COMMODITY PRICING FOR THE DECEMBER 2008 QUARTER**

The price of Platinum was again lower in the period, but was trading in a more restricted range of approximately USD800~USD900 per ounce ([www.Kitco.com](http://www.Kitco.com)). In Australian Dollar terms Platinum was trading slightly higher at AUD1450 per ounce level, as at 26 January 2009.



## CORPORATE ACTIVITIES

### Tenement Position

New tenements were granted at Fifield, namely EL7233(4 units) and EL7234 (13 units), where the primary mineralisation target in these areas is Gold. **A 10% free carried interest in Broken Hill Block EL5958 (74 units) was secured**, with Perilya as the operating Joint Venture partner, exploring for base metal.

### Cash, Facilities and Investments

As at 31<sup>st</sup> December 2008 the Company had approximately \$1.793 million in cash. The Company repaid a vendor loan (\$107,000) on its freehold property at Fifield NSW (210 hectares) and now has no outstanding debt. This property is a strategic asset in the work program for Pt mineralisation.

### Annual General Meeting

The AGM was held on 20<sup>th</sup> November 2008 in Melbourne, where a detailed presentation on the Company and its exploration progress and priorities was provided. A full version of the presentation is available by clicking the hyperlink at:

[http://www.rimfire.com.au/PDF/Rimfire%20AGM%202008%20Presentation%20AudioLink%20Final%20ASX\\_20\\_11\\_08.pdf](http://www.rimfire.com.au/PDF/Rimfire%20AGM%202008%20Presentation%20AudioLink%20Final%20ASX_20_11_08.pdf) and an audiolink version of the presentation is available at <http://www.brr.com.au/event/53963>.

### Issued Capital

The issued capital at the close of business at 31<sup>st</sup> December 2008 was:

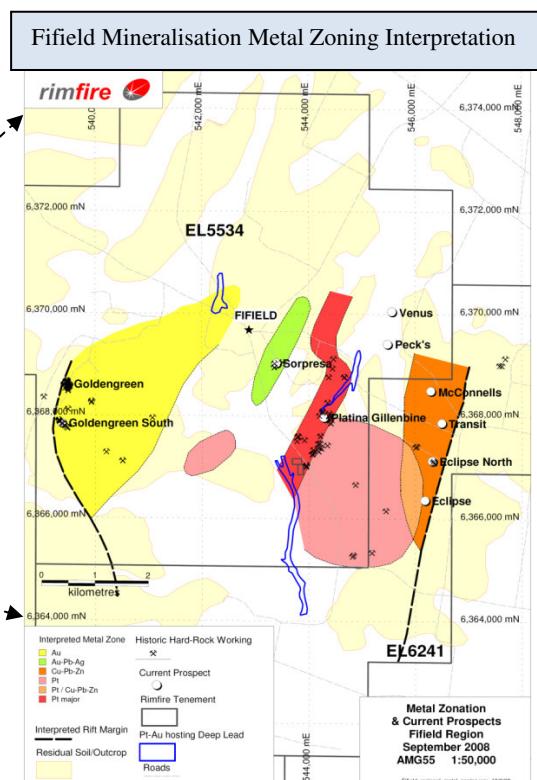
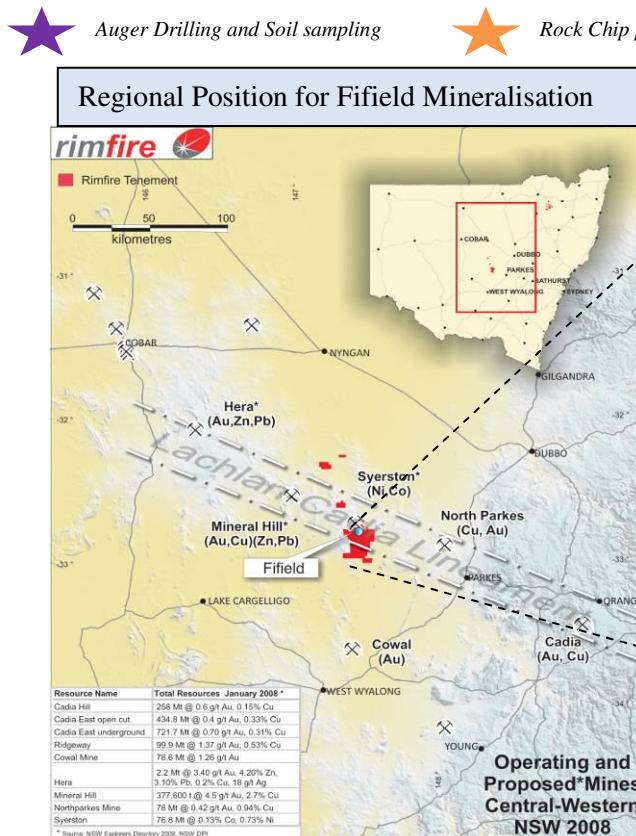
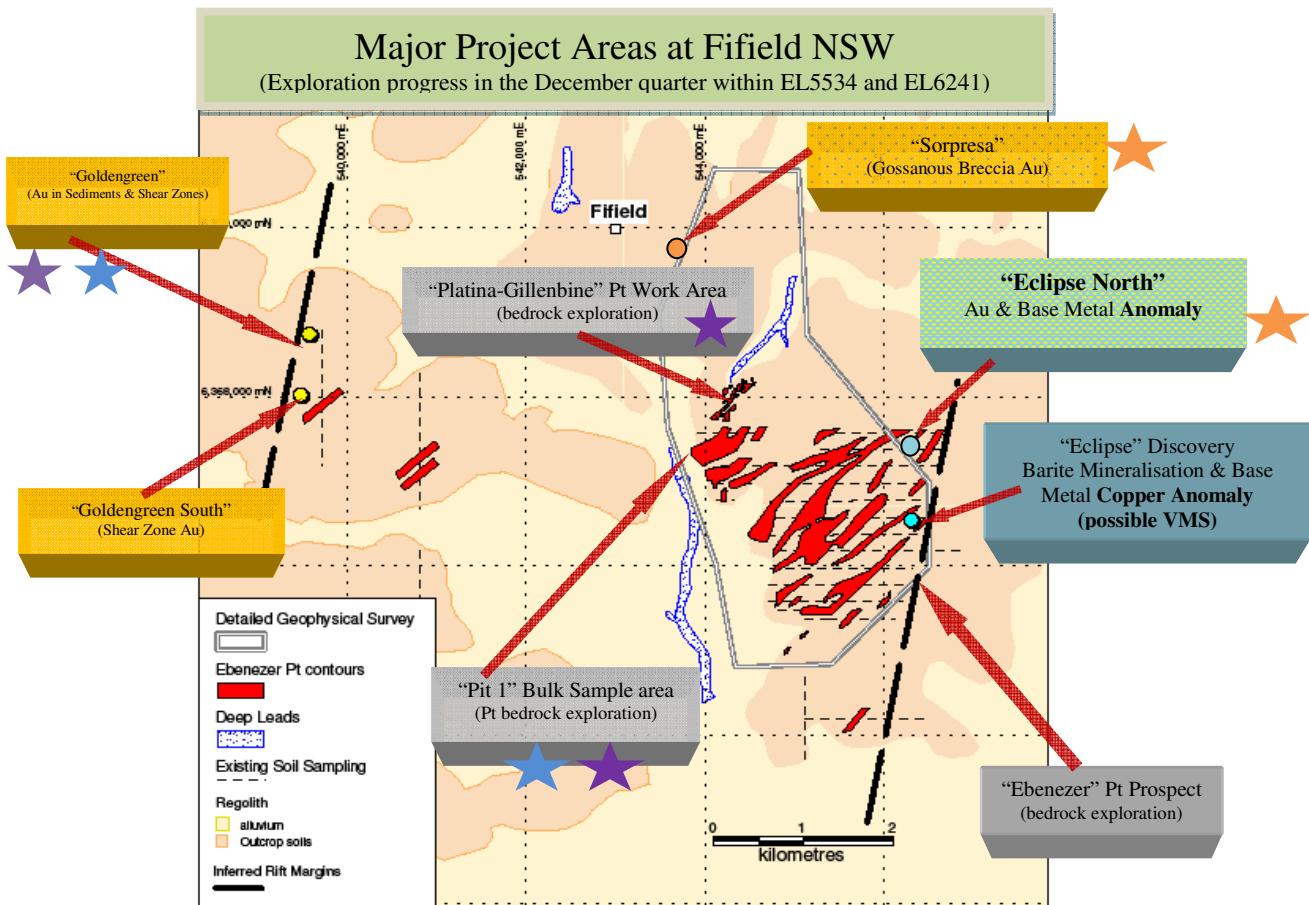
311,976,107 ordinary shares

7,500,000 unlisted call options ex @ \$0.12 expiring 30<sup>th</sup> September 2010

**JOHN KAMINSKY**  
Chairman

*The information in the report to which this statement is attached that relates to Exploration Results is compiled by Mr Colin Plumridge, who is a Member of The Australian Institute of Mining and Metallurgy, with over 30 years experience in the mineral exploration and mining industry. Mr Plumridge is employed by Plumridge & Associates Pty. Ltd. Mr Plumridge has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the "Australian Code for Reporting of Mineral Resources and Ore reserves". Mr Plumridge consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.*

## APPENDIX 1 – Project Areas Fifield NSW and Metal Zoning Interpretations



## **APPENDIX 2 – Rimfire Exploration Advances at Fifield NSW and Pt Mineralising Model**

Issue of Difference in the modern era of Exploration	Prior to Rimfire (work of other explorers)	Rimfire Advances
Drainage Direction Interpreted	North to South	South to North
Rift Valley Setting	Not seen	Recognised
Pt recognised and recovered from Bedrock	No	Yes
Sampling size and system	Inadequate	Customised Plant
Focus on Magnetic Features	Excessive	Field Based
Geological Control Discovered	No	Yes
Gold and Base Metal Exploration & Recognition	Not Significant	Yes
Geological Model “Shear Zones”	No	Yes

### **Mineralising Model – Primary Pt in Shear Zones**

